

Solid State Reaction of the  $\text{TiO}_2\text{-ZnO}$  System  
by T. Kubo, et al.  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol LXVI,  
No 4, 1963, pp 403-407.  
NASA TT F-10,456

U. S. GOVERNMENT USE ONLY  
Sci-Tech  
Jan 67

317,846

Harazaki, Y., Hasegawa, H., and Kirigaya, K.  
PHOTOELECTRIC PROPERTIES OF ELECTROFAX  
PAPER IN RELATION TO ITS PREPARATION.  
[Apr 64] 7p  
Order from ATS \$9.00

ATS-87R74J

Trans. of Kogyo Kagaku Zasshi (Japan) 1963, v. 66,  
no. 4, p. 432-434.

(Materials--Photographic, TT, v. 12, no. 2)

TT-64-22078

- I. Harazaki, Y.
- II. Hasegawa, H.
- III. Kirigaya, K.
- IV. ATS-87R74J
- V. Associated Technical  
Services, Inc.,  
East Orange, N. J.

TT-64-14987

Office of Technical Services

Harazaki, Yuji, Hasegawa, Haruo, and Kirigaya, Kiichi.

EFFECT OF PHOTSENSITIVE LAYER CONSTRUCTION IN ELECTROPHOTOGRAPHIC PAPER. Rept. 5 of Study of Electrophotographic Paper. [1963] 7p (figs refs omitted) 2refs  
Order from SLA \$1.10

TT-64-10513

Trans. of [Kogyo Kagaku Zasshi (Japan) 1963, v. 66, no. 4, p. 435-437]. (Abstract available)

DESCRIPTORS: \*Photographic paper, \*Electrophotography, \*Photosensitivity, \*Photographic emulsions, Zinc compounds, Oxides, Silicones, Polyester plastics, Styrene plastics, Binders.

With regard to electrophotographic papers of a zinc oxide resin dispersion type, the relation of the weight of photosensitive layers to electric charge characteristics was pursued. To examine electric charge character- (Materials--Photographic, TT, v. 11, no. 9) (over)

TT-64-10513

- I. Title: Rose bengal
- I. Harazaki, Y.
- II. Hasegawa, H.
- III. Kirigaya, K.
- IV. Title: Study...

Office of Technical Services

Some Factors Affecting the Efficiency of Preparative  
Scale Gas Chromatography, by I. Takeda.  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol LXVI, 1963,  
pp 442-446.  
Fisheries Research  
Board of Canada,  
Tech Stations

Sci - Engr  
Sept 64

266,480

Design and Construction of a Preparative Scale Gas  
Chromatography, by I. Takeda, Y. Mashiko.  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol LXVI, 1963,  
pp 446-450.  
Fisheries Research  
Board of Canada,  
Tech Stations

Sci - Engr  
Sept 64

256,479

63-18902

Asahara, Teruzo, Yamashita, Kenjiro, and Katayama, Shizumi.

POLYGLYCOLLIDE SYNTHESIS REACTION. Rept. 1  
[of] Studies on Aliphatic Polyesters. [1963] 14p 5refs  
Order from SLA \$1.60 63-18902

Trans. of Kogyo Kagaku Zasshi (Japan) 1963, v. 66,  
no. 4, p. 485-489.

DESCRIPTORS: \*Glycolic acids, Anhydrides, Poly-  
merization, Dehydration, \*Chloroacetic acids,  
Catalysts, Antimony compounds, Oxides, Potassium  
compounds, Bromides, Reaction kinetics, \*Polyester  
plastics, Synthesis (Chemistry).

The polyglycollide, which is derived from the most  
simple aliphatic hydroxy acid, glycolic acid, was  
studied in order to probe raw materials for its produc-  
tion and to determine the reaction velocity and reaction  
(Materials--Plastics, TT, v. 10, no. 11) (over)

- I. Title: Polyglycollide
- I. Asahara, T.
- II. Yamashita, K.
- III. Katayama, S.
- IV. Title: Studies...

Office of Technical Services

Yamaguchi, Toshihiro and Kashiwase, Koji.  
POTASSIUM POLYMETAPHOSPHATE HAVING SPINNA-  
BILITY: PREPARATION CONDITIONS AND SOME PRO-  
PERTIES. [1964] 14p 14refs  
Order from SLA \$1.60

TT-64-10708

Trans. of Kogyo Kagaku Zasshi (Japan) 1963, v. 66,  
no. 5, p. 577-580.

(Materials--Paper, TT, v. 11, no. 12)

TT-64-10708

I. Yamaguchi, T.  
II. Kashiwase, K.

Office of Technical Services

Yokoyama, M., Cho, H., and Aida, F.  
REACTIONS OF TRIPHOSPHONITRILE CHLORIDE  
WITH CARBOXYLIC ACID. [1963] 9p 12refs  
Order from SLA \$1.10 TT-63-20686

Trans. of [Kogyo Kagaku Zasshi] (Japan) 1963, v. 66,  
no. 5, p. 609-613.

DESCRIPTORS: \*Carboxylic acids, Elastomers,  
\*Phosphonitrile chlorides, Elimination reactions,

The reactions of triphosphonitrile chloride with  
carboxylic acid were effected by the following three  
methods as used in the reactions of triphosphonitrile  
chloride with alcohol, mercaptan, phenol, etc. (1)  
Hydrogen chloride eliminating reaction directly bring-  
ing the two into reaction. (2) Hydrogen chloride elimi-  
nating reaction using pyridine. (3) Reaction using  
sodium salt of carboxylic acid. In the methods (1) and  
(2) it seems that the decomposition of triphosphonitrile  
(Materials--Elastomers, TT, v. 11, no. 4) (over)

TT-63-20686

I. Yokoyama, M.  
II. Cho, H.  
III. Aida, F.

Office of Technical Services



Yokoyama, M., Yamada, F., Kawasaki, S., and Suzuki, K.

POLYMERIZATION OF ESTERS OF TRIPHOSPHONITRILIC ACID. Rept. 12 of Researches on Triphosphonitrile and Its Derivatives. [1963] 11p

23refs

Order from SLA \$11.60

TT-63-20685

Trans. of [Kogyo Kagaku Zasshi] (Japan) 1963, v. 66, no. 5, p. 613-617. (Abstract available)

DESCRIPTORS: \*Elastomers, \*Phosphonitrile chlorides, \*Phosphonitriles, Acids, Esters, Polymerization, Propanols, Butanols, Cyclohexanols, Phenols, Catalysts, Benzoyl radicals, Peroxides, Aluminum compounds, Chlorides, Molecular weight.

For the purpose of obtaining heat resisting and flame resisting polymer containing phosphorus in coupled main chain polymerization reaction of esters of (Materials--Elastomers, TT, v. 11, no. 3) (over)

TT-63-20685

- I. Title: Triphosphonitrilic acid esters
- II. Yokoyama, M.
- II. Yamada, F.
- III. Kawasaki, S.
- IV. Suzuki, K.
- V. Title: Researches ...

Office of Technical Services

Saito, H. and Kajiwara, M.  
STUDIES ON SYNTHETIC REACTION OF PHOS-  
PHONITRILIC CHLORIDES. Rept. 1 of Studies on  
Phosphonitrilic Chlorides. [1963] 7p  
Order from SLA \$1.10

TT-63-20688

Trans. of [Kogyo Kagaku Zasshi] (Japan) 1963, v. 66,  
no. 5, p. 618-620. (Abstract available).

DESCRIPTORS: \*Elastomers, \*Phosphonitrile  
chlorides, Synthesis (Chemistry), \*Phosphorus  
compounds, \*Ammonium compounds, Reaction  
kinetics.

When  $(\text{PNCI}_2)_n$  is synthesized by the reaction of  
phosphorus pentachloride with ammonium chloride  
with  $\text{CHCl}_2\text{CHCl}_2$  as solvent the reaction is very  
complicated, and depending on reaction conditions  
the synthetic product is obtained as mixture of  
different compounds with different yields. Experiment  
(Materials--Elastomers, TT, v. 11, no. 3) (over)

TT-63-20688

I. Saito, H.  
II. Kajiwara, M.  
III. Title: Studies ...

Office of Technical Services

Kajiwara, M. and Saito, H.  
EFFECT OF 2,6-DI-TERT-BUTYL-P-CRESOL ON  
THE POLYMERIZATION OF PHOSPHONITRILIC  
CHLORIDE TRIMER. Rept. 2 of Studies on Phos-  
phonitrilic Chlorides. [1963] 11p 9 refs  
Order from SLA \$1.60

TT-63-20689

Trans. of [Kogyo Kagaku Zasshi] (Japan) 1963, v. 66,  
no. 5, p. 621-624. (Abstract available)

DESCRIPTORS: \*Elastomers, \*Phosphonitrile  
chlorides, Polymerization, Hydrolysis, Reaction  
kinetics, Plasticity, \*Cresols.

When heated phosphonitrilic chloride trimer (here-  
inafter referred to as (PNC)<sub>3</sub>) turns into inorganic  
rubbery substance. This substance is relatively  
unstable and liable to be hydrolyzed. In its poly-  
merization various organic matters were added, and  
among them an excellent result was shown by 2,6-di-  
(Materials--Elastomers, TT, v. 11, no. 3) (over)

TT-63-20689

- I. Title: 2,6-Di-tert-butyl-  
p-cresol
- I. Kajiwara, M.
- II. Saito, H.
- III. Title: Studies ...

Office of Technical Services

TT-64-10702

Takimoto, Masayoshi, Yokoyama, Tadao, Sawada,  
Masaru, and Yamashita, Motoji.  
ISOLATION OF MELAM AND MELEM FROM FUSED  
PRODUCTS OF DICYANDIAMIDE AND MELAMINE,  
AND SOME OF THEIR PROPERTIES. [1964] 15p  
Ilrefa

Order from SLA \$1.60

TT-64-10702

Trans. of Kogyo Kagaku Zasshi (Japan) 1963, v. 66,  
no. 6, p. 793-797.

I. Takimoto, M.  
II. Yokoyama, T.  
III. Sawada, M.  
IV. Yamashita, M.

(Chemistry--Organic, TT, v. 11, no. 12)

Office of Technical Services

TT-63-20696

Takimoto, Masayoshi and Funakawa, Takayoshi.  
STUDIES OF THE CHANGES UNDER HEATING OF  
DICYANDIAMIDE AND MELAMINE BY THE USE OF  
DIFFERENTIAL THERMAL ANALYSIS UNDER  
ATMOSPHERIC AND SUPERATMOSPHERIC PRESSURE.  
Rept. 1 of Studies on the Polycondensation (Melaminiza-  
tion) Reaction of Dicyandiamide. [1963] 23p 8refs  
Order from SLA \$2.60 TT-63-20696

Trans. of Kogyo Kagaku Zasshi (Japan) 1963, v. 66,  
no. 6, p. 797-803. (Abstract available)

DESCRIPTORS: \*Melamine, Synthesis (Chemistry),  
\*Cyanamides, Polymerization, Heat treatment, Calorim-  
etry, Nitrogen, Ammonia, Pressure,

When dicyandiamide is heated at normal pressure or  
under applied pressure, deammoniation condensation  
products such as melam, melem, and melon form as  
by-products besides melamine. In order to study the  
(Chemistry--Organic, TT, v. 11, no. 3) (over)

1. Title: Dycandiamide
  2. Title: Melam
  3. Title: Melen
  4. Title: Melon
- I. Takimoto, M.
  - II. Funakawa, T.
  - III. Title: Studies ...

Office of Technical Services

Takimoto, Masayoshi and Funakawa, Takayoshi.  
STUDIES ON THE CHANGES UNDER HEATING OF  
MELAM, MELEM, AND MELON UNDER ATMOS-  
PHERIC PRESSURE AND SUPERATMOSPHERIC PRES-  
SURE OF AMMONIA. Rept. 2 of Studies on the Poly-  
condensation (Melaminization) [Reaction] of Dicyandia-  
mide. [1963] 17p 4refs  
Order from SLA \$1.60

TT-63-20695

Trans. of Kogyo Kagaku Zasshi (Japan) 1963, v. 66,  
no. 6, p. 804-809. (Abstract available)

DESCRIPTORS: \*Melamine, Synthesis (Chemistry),  
\*Cyanamides, Polymerization, Heat treatment, Ammonia,  
Pressure, Calorimetry,

Melam, melem, and melon are formed from melamine  
by deamination condensation, and conversely,  
melamine is formed from these compounds by ammonia  
addition reaction; in order to determine the conditions  
(Chemistry--Organic, TT, v. 11, no. 3) (over)

TT-63-20695

1. Title: Dicyandiamide
2. Title: Melam
3. Title: Melem
4. Title: Melon
- I. Takimoto, M.
- II. Funakawa, T.
- III. Title: Studies ...

Office of Technical Services

Tsuchida, H., Shinohara, I., and Kanbara, Shu.  
THE PREPARATION OF OLIGOSTYRENES BY TELO-  
MERIZATION. 11p 4refs  
Order from SLA \$1.60

TT-64-16624

Trans. of Kogyo Kagaku Zasshi (Japan) 1963, v. 66,  
no. 6, p. 824-827.

TT-64-16624

I. Tsuchida, H.  
II. Shinohara, I.  
III. Kanbara, S.

(Chemistry--Organic, TT, v. 12, no. 4)

Office of Technical Services

TT-64-14357

Okahara, M., Goto, J., and Komori, S.  
SYNTHESIS AND SURFACE ACTIVITY OF  
ALKYLUREA N-GLUCOSIDES. [1963] 18p 31refs  
Order from SLA \$1.60 TT-64-14357

Trans. of Kogyo Kagaku Zasshi (Japan) 1963, v. 66,  
no. 7, p. 948-952. (Abstract available)

DESCRIPTORS: \*Surface-active substances, \*Glucosides,  
\*Urea, Synthesis (Chemistry), Catalysts, \*Phosphoric  
acids, Anhydrides, Surface tension, Colloids, Foams.

Alkylurea N-glucosides were synthesized by the reaction  
of alkylurea with glucose in dimethylformamide, using  
concentrated phosphoric acid or phosphoric anhydride  
as a catalyst. The reaction conditions, e.g. tempera-  
ture, time, type of catalyst, etc. are discussed. It was  
found that the best results were obtained when 0.2 - 0.5  
moles of concentrated phosphoric acid were used per  
(Chemistry--Organic, TT, v. 11, no. 11) (over)

1. Title: Alkylurea  
N-glucosides
- I. Okahara, M.
- II. Goto, J.
- III. Komori, S.

Office of Technical Services



Synthesis and Friedel-Crafts Polycondensation  
of the Bis-Chloromethylation Product of 1,2-  
Diphenoxyethane, by I. Tabuse, et al.  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol 66,  
1963, pp 979-981.  
NTC 71-14069-07C

Feb 72

Studies on the Adsorptive Properties and Potentials  
of Surface Active Agents to Fibers. Part II. Ad-  
sorptive Properties and Potentials of Surface Ac-  
tive Agents on Synthetic Fibers in Acidic Aque-  
ous Solutions, by T. Suzawa.

JAPANESE, per, Kogyo Kagaku Zasshi, Vol 66, No 7,  
1963, pp 1002-1007.

NTC 69-11290-11E

Sci-Mat  
July 69

387,120

TT-64-10703

Takeda, Hiromu, and Nukushina, Yasuhiko.  
STUDIES ON ACRYLIC FIBERS: INFLUENCE OF CO-  
AGULATING METHOD ON THE INTERNAL STRUC-  
TURE OF THE FIBER. [1964] 14p 8refs  
Order from SLA \$1.60

TT-64-10703

I. Takeda, H.  
II. Nukushina, Y.  
III. Title: Influence ...

Trans. of Kogyo Kagaku Zasshi (Japan) 1963, v. 66,  
no. 8, p. 1241-1244.

(Materials--Textiles, TT, v. 11, no. 12)

Office of Technical Services

Electrochemical Fluorination With  
Electrodes of Various Metals, by Shunji Nagase,  
Hajime Baba, et al.  
JAPANESE, per, kogyo Kagaku Zasshi, Vol LXVI,  
1963, No 9, pp 1287-1289.  
SLA TT 64-14986

Sci  
May 67

327,225

Thermodynamics for the Extraction of Uranyl  
Nitrate and Nitric Acid by Organophosphorous  
Compounds, by Tomota MISHI, Mitsuru AEANO, 24 pp.  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol 66,  
No 10, 1963, pp 1428-1433.  
AEC NEJ Tr-13

331,165

Sci - Chemistry  
Jul 67

Asaba, T[etsuro] Yoneda, K[unishi] and Hikita,  
T[akatoshi].  
HIGH TEMPERATURE PYROLYSIS OF ETHANE IN A  
SHOCK-WAVE TUBE. Apr 64, 6p 18 refs  
Order from ICE \$13.00/year in International Chemical  
Engineering, 1964, v. 4, no. 2, p. 340-345

Trans. of Kyoto Kagaku Zasshi (Japan) 1963 [v. 66]  
no. 10, p. 1432.

(Chemistry--Organic, TT, v. 12, no. 4)

TT-64-22217-2 (p. 340-345)

- I. Asaba, T.
- II. Yoneda, K.
- III. Hikita, T.
- IV. International Chemical  
Engineering, New York

Office of Technical Services

Nakamura, M. and Kuroiwa, S.  
BACK POLYMERIZATION BY SACCHARIFYING  
AMYLASE. [1964] 9p  
Order from ATS \$12.00                      ATS-78R74J

Trans. of Kogyo Kagaku Zasshi (Japan) 1963, v. 66,  
no. 10, p. 1466-1468.

(Chemistry--Organic, TT, v. 11, no. 12)

TT-64-12745

I. Nakamura, M.  
II. Kuroiwa, S.  
III. ATS-78R74J  
IV. Associated Technical  
Services, Inc.,  
East Orange, N. J.

Office of Technical Services

Studies on the Polymerization of Ethylene. Part 2.  
Synthesis of 1-butene from Ethylene by Dimeriza-  
tion, by A. Takahashi.

JAPANESE, per, Kogyo Kagaku Zasshi, Vol 66,  
No 10, 1963, pp 1472-1476.

ATS-JB-243

Sci-Chem  
Mar 70

403,907



The Application of the Infrared Absorption  
Spectroscopy to Chemical Industry, 19 pp.  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol LXVI,  
No 11, 1963, pp 1543-1559. / 54,0  
JPRS 25356

Sci - Chem  
Jul 64

263,5600

The Problematic Points in the Infrared Absorption  
Spectroscopic Analytic Method, 20 pp.  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol LXVI,  
no 11, 1963, pp 1547-1553.  
JPRS 25356

Sci - Chem  
Jul 64

263,601

Infrared Qualitative Analysis and the Collection  
of Spectral Data, 14 pp.  
RJAPANESE, par, Kogyo Kagaku Zasshi, Vol LXVI,  
No 11, 1963, pp 1543-1559.  
JPRS 25356 5

Sci - Chem  
Jul 64

263, 602

Study on the Hardening Reaction of p-Methylol Phenol  
by gas Chromatography and Infrared Absorption  
Spectroscopy, by Naoki Yoshimi, Masayoshi  
Yamao, Shigeyuki Tanaka, 6pp  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol 66,  
1963, No 11, pp 1601-1604  
SIA TT-64-18129

Sci - Mat  
May 67

325,963

Variation With Temperature of the Infra-Red Spectrum  
of Polyvinyl Chloride. Part II. Behaviour in the  
Region of the Glass Transition Temperature, by  
K. Fukawa.

JAPANESE, per, Kogyo Kagaku Zasshi, Vol 66, No 11,  
1963, pp 1605-1609.

NTC-71-11365-07C

ULL Ref: 5207B 1965 (1127)

Nov 71

Claisen-Type Polycondensation of Bifunctional  
Carbonyl Compounds and Photocrosslinking of  
the polycondensation, by Hwao Tabushi and  
Noboru Tanimura.

JAPANESE, per, Kogyo Kagaku Zasshi, 1963,  
vol.66, no.11, pp.1717-1720.

SLA-88-64-20948

Chem

Aug 66

307,785

Formation of Cl<sub>2</sub> by the Oxidation of NaCl,  
Pyrite and SO<sub>2</sub>,<sup>2</sup> by K. Sugiyama, T. Takahashi.  
JAPANESE, per<sup>2</sup>, Kogyo Kagaku Zasshi,  
Vol LXVI, No 12, 1963, pp 1773-1777.  
Chem Trans Sv No 2564

Sci-Chem  
Mar 67

322,143

Studies on PVC. Part 39. Chlorosulfonation of  
Polypropylene and Some Reactions of the Pro-  
ducts with Amines, by K. Takemoto.  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol 66,  
No 21, 1963, pp 1925-1927.  
ATB-JE-196

Sci-Chem  
Mar 70

403,870



Biochemical Reaction Cell (II) - Application of  
Hydrogenase-Methylene Blue System to Anodic  
Reaction of Cell, by J. Mizuguchi, et al.  
JAPANESE, per, Kogyo Kagaku Zasshi, No 67,  
1964.

\*AFCL

Sci/Chem

70-13435-07C

Suzuki, H.; Miyoshi, R.; Sano, S.  
1 : 2 METAL COMPLEX AZO DYES HAVING  
8-ACETYLAMINO-4-METHOXY-1-NAPHTHOL AS A  
COUPLING COMPONENT. Kogyo Kagaku Zasshi, v. 67,  
p. 124-128, 1964.  
Order from NTC as 70-13435-07C: HC \$ 7.60, MF \$ 5.80.

Synthesis of S-Triazine System Cationic Dyes,  
by M. Okazaki.  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol 67, 1964,  
pp 129-134.  
NTC-71-12286-07C

Nov 71

Synthesis of Pyrimidine System Cationic Dyes, by  
M. Okazaki,  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol 67,  
1964, pp 134-137.  
NTC-71-12285-07C

Nov 71

Momozu Lake Pigments with Various Metals,  
by Y. Babsho, et al,  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol  
LXVII, No 1, 1964, pp 182-185.  
ATS JS-74

*ATS-25 R 801*

Sci-Materials  
Apr 67

324,777

Formation Conditions and Crystal Transition  
of Hatchung Red Sodium Salt, by Y. Babsho,  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol  
LXVII, No 1, 1964, pp 192-197.  
ATS JS-75

Sci-Materials  
Apr 67

324,778

Effect of Dispersing Agents on the  
Colorimetric Determination of Direct Dyes,  
by H. Iida, M. Endo.  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol LXVII,  
No 1, 1964, pp 205-209.  
ATS 42R-77j

Apr 67

322,2548

Synthesis of Fibrous Potassium Titanate by  
Flux Evaporation Method, by H. Saito.  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol 67,  
1964, pp 297-300.  
NTC-71-14872-07B

Feb 72



Radiation Induced Copolymerisation of Tetra-  
fluoroethylene With Vinylchloride at Low  
Temperature, by Yoneho TABATA, Kameo HAMANOUE,  
Hiroshi SONE, 8 pp.  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol 67,  
No 3, 1964, pp 482-484.  
AEC EBJ Tr-45

331,167

Sci - Chemistry  
Jul 67

Properties of the Cobalt Oxide Power by  
Roasting Cobalt Salts, by Teruichiro  
Kubo.

JAPANESE, per, Kogyo Kagaku Zasshi, Vol  
67 No 3, 1964, pp 504-505.

\*NASA TT F-12,203

Sci-Chem  
Mar 69

Effect of lignin on the Negative Plates of Sintered-type Alkaline Storage Batteries, by Daijiro Yamashita, et al.  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol 67, No 4, 1964, pp 536-539.

SAEC SC-T-66-0743 P911083466

Sci//Energy Conversion  
Oct 66

Moisture Absorption of a Few Kinds of Polymers,  
by Sumai Chujo, Ryoichi Satsumoto, et al, 29 pp.  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol XLVII,  
1964, pp 343-348.  
AEC-SC-T-64-1639

Sci - Phys  
Aug 65

287,331

Properties of Tricobalt Tetroxide Powder Obtained  
from the Calcination of Cobalt Salts, by  
Teruichiro Kube. 16 pp.  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol 67,  
No 3, 1964, pp 504-505.  
NASA TT F-12,203

Sci-Chem  
Oct 69

392,925

Effect of Lignin on the Negative Plates of  
Sintered-Type Alkaline Storage Batteries, .  
by Daijiro Yamashita and Yoshibumi Yama-  
moto, et al,  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol  
LXVII, 1964, pp 536-539.  
AEC SC-T-66-0743

Sci-Energy Con  
Nov 66

313,744

Molecular Structure of B-Polyprolactone,  
H. Go Masai, et al,  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol LXVII,  
No 4, 1964, pp 601-604.  
ACSI J-2107  
ID 2204014067

Sci-Chem  
May 67

326,838

Molecular and Crystal Structures of Poly-  
glycolide, by Koyu Hirono, et al,  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol  
LXVII, No 4, 1964, pp 604-607.  
ACSI J-2108  
ID 2204014167

Sci-Chem  
May 67

326,839



Some Problems of Fermentation Kinetics,  
by Gyozo Terui.

JAPANESE, per, Kogyo Kagaku Zasshi,  
Vol 67, pp 714-719, 1964 9229820  
AEC UCRL-Tr-1192

Sci-Phys  
Nov 65

291,626

Properties of Alumina Trihydrates Obtained by  
the Ageing of Alumina Gel, by Y.K. Shimizu,  
K.E. Funaki.  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol. 67,  
No. 5, 1964, pp 798-803  
GB 118/PSS 2053/J

Sci -  
Aug 67

337-143

Studies on the Burned, Defluorinated Tricalcium  
Phosphate, by J. Ando, S. Matsuno.  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol 67,  
No 6, 1964, pp 880-883.  
SIA TT-66-10248

Sci-Chem  
Aug 66

309,192

The Catalytic Action of Metallic Compounds  
in the Transesterification of Dimethyl  
Terephthalate with Ethylene Glycol, by  
K. Yoda, K. Kimoto.  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol  
67, No 6, 1964, pp 909-914.  
NTC 69-11487-07C

Sci-Chem  
July 69

387,073

Polymerization of Propenyl Chloride Isomers,  
by A. Shimizu, T. Ohtsu.  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol 67,  
No 6, 1964, pp 966-970.  
NRC-69-16371-07C

Sci-Chem  
Feb 70

402,906

Polycondensation Through Various Reactions.  
Part V. Formation of Polyimides by the  
Addition Cyclizations of Alicyclic Tetra-  
carboxylic Acids, by I. Tabushi,  
N. Tanimura.  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol  
67, No 7, 1964, pp 1084-1086.  
NTC 69-11488-07C

Sci-Chem  
July 69

387,075

The Effect of Additive Agents in Liquid  
Phase Oxidation with Oxygen  
of p-Xylene and Low Temperatures, by  
J. Yamashita, K. Kurashima, M. Hida,  
H. Hashimoto.

JAPANESE, per, Kogyo Kagaku Zasshi, Vol 67,  
1964, pp 1153-7.  
SLA TT-66-10808

331, 477

Sci - Chem  
Jul 67

Mineral Composition of Ores and Silicagel  
Quality, by Masahiro Maeno.  
JAPANESE, per, Kogyo Kagaku, Vol 67, No 9,  
1964, pp 1361-1364.  
NASA Translation Available CFSTI

Aug 69



Studies on the Hydrothermal Growth of Corundum  
Single Crystals, by O. Yamaguchi.  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol 67,  
No 10, 1964, pp 1499-1501.  
ATS-JS-216

Sci.-Chem  
Mar 70

403,886

Continuous Analysis in Chemical Process Plants,  
by H. Moriuchi.  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol LXVII,  
No 11, 1964, pp 1710-1713.  
BR440 TT P-9842

Sci-Engg  
Jun 68  
U.S. GOVERNMENT ONLY

281,1024

R-5367-D

Use of High-Resolution NMR in the Polymer Industry.  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol LXVII,  
No 11, 1964, pp 1737-1743.

\*JPRS/Naval Propellant Plant

Sci  
Jun 65

Application of the Direct Reading Unit;   
Synchronization in Process Control, by Y. Tachikawa.   
JAPANESE, per, Kogyo Kagaku Zasshi, Vol LXVII,   
No 11, 1964, pp 1744-1748.   
NASH TT F-934B

Sci-Mag

Jun 65

U.S. GOVERNMENT ONLY

262,564

ROMANIAN Time-of-Flight Mass Spectrometer: In  
Characteristics and Applications, by H. Tomita.  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol Lxvii,  
No 11, 1964, pp 1769.  
NASA TT F-9346

Sci-Engr  
Jun 68  
U.S. GOVERNMENT ONLY

282,586

Ultramicroanalysis by Means of the Hotchkiss-  
Herring Type Mass Spectrograph, by T. Watanabe,  
et al.  
JAPANESE, per, Kogo Kagaku Zasshi, Vol LXVII,  
No 11, 1964, pp 1778-1793.  
NASA TT P-5343

Sct-Engg  
Aug 65

386,340

Application of the Gas Chromatography Process  
to the Petroleum Acetylene Plant, by T. Sogawa  
and K. Hishiguchi.

JAPANESE, per, Kogyo Kagaku Zasshi, Vol 67,  
No 11, 1964, pp 1794-1798.

Chem Trans Sv 2545

Sci - ~~XXXXXXXXXX~~ Materials  
Apr 67

324,655

The Use of an Electron Carrier System of  $\text{NH}_4\text{Cl}-\text{CuSO}_4$  as a Biochemical Reaction Cell, by  
Jun Mizuguchi, Shuichi Suzuki.  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol 67, No 11,  
1964, pp 1887-1889.  
Tr No 59, Oct 1969  
AIR/AFCRL/69-0430

Sci/Chem  
Jan 70

400,106



Photoconductance of Vinyl Polymers Having  
Nitrated Condensed Rings, by K. Morimoto,  
A. Inami,  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol  
LXVII, No 11, 1964, pp 1938-1941.  
ATS JS-76

Sci-Phys  
Apr 67

324,779

Studies of the Mechanism of Combustion of Delay  
Elements, by M. Yamada, J. Yonezawa, 6 pp.

JAPANESE, per, ~~Kogyo~~ ~~Kogyo~~ Kogyo Kyokaiishi,  
Vol. XIX, No 2, 1958, pp 118-121.

ATS-6938J

Sci  
Feb 62  
Vol III, No 11

182,801

Electric Spark Sensitivity of Explosives,  
by Y. Nakano, et al, 6 pp.  
JAPANESE, per, Kogyo Kayaku Kyokaishi, Vol XXIV,  
No 6, 1963, pp 351-353. 9224524  
AEC-LA-Tr-24-19

Sci-Phys  
Nov 64

268, 19720

Wang, Shih-mu and Tseng, Chao-lun.  
THE GLUTAMIC ACID IN PROTEINS AND THE  
COMMERCIAL CONDIMENT, SODIUM GLUTAMATE.  
[1963] 31p. 45 refs.

Order from OTS or SLA \$3.60

63-14650

Trans. of [K'o Hsueh] (China) 1933, v. 17,  
p. 1018-1048.

DESCRIPTORS: \*Glutamic acid, \*Proteins, \*Sodium  
compounds, Salts, \*Condiments, Industrial production,  
Quantitative analysis, China, Chemical properties,  
Physical properties, Hydrolysis, Cereals, Seeds,  
Hydrochloric acid,

Topics include: The discovery of glutamic acid and  
sodium glutamate; the glutamic acid content of different  
proteins; the method of preparation of glutamic acid and  
sodium glutamate; the industrial preparation of sodium  
glutamate for use as a commercial condiment and its  
(Food, TT, v. 10, no. 6)

(over)

63-14650

I. Wang, Shih-mu  
H. Tseng, Chao-lun

Office of Technical Services

Probability and Mathematical Statistics by Cheng  
Shao-lien, 42 pp.

Chinese, bk, Ko-haueh Chi-shu Ch'u-pan Sae,  
Shanghai, 1961, pp 3-5-344. 9687638

FED-TT-63-472

Sci. Math & Data Proc  
Nov 63

241,482

Popular Speeches on Outline of the Long-Range Plan  
for the Development of Scientific Technology.  
SUMMARY TR

CHINESE, ~~SS~~, K'o-Hueh-Chi-Shu-Pa-Chan-Yuan-Ching-  
Kuei-Hua-King-Yao-Tjung-Su-Chiang-Hua, Oct 1958,  
174pp.

USACHAPAC, PD  
No 99283

FE - China

91,238

Progress of Automation Technology, by Wang Hsin-min,  
Lu, Ying-hsiang, Hsueh Ching-hsuan, 7 pp.  
CHINESE, mono, K'o-hsueh Chu-pan-she, Dec 1963.

FDD X 5920

Aug 66

308,993

The 104 Electronic Computer (Chapter 2), by  
I. Chang, 29 pp.  
CHINESE, Lt. K'uo Hsueh Ch'u Pan She, Peking.  
1963, pp 22-43. P100194348-V  
FTD-HT-67-306

Sci/Elect & Elect Engr  
Sept 68

364,999



A-2020

(LC-1969).

~~Chung-kuo T'ai-pan Ch'iu-hua To-ao-an~~ (Tentative Schemes  
for Dividing the Natural Regions of China,

CHINESE, bk, ~~K'ic-hsueh~~ Ch'u-pao-she, Apr 1956, compiled  
by Chung-hua Ti-li-chih P'ien-chi-pu, pp 97-159.

\*US JPRS

FE - China

Geo - Natural regions

Naval Vessels.

CHINESE, pamphlet, K'o-hsueh P'u-chi Ch'u-Pan-she,  
1957, 42 pp.

USACRPAO, PD  
Tr No 102221-B

FE - China  
M11  
Aug 60

121,402

(2336-H)

China's Progress in the Physical Sciences, 8 pp.

CHEN, per, K'o-hsueh Hsin-wen, No 2, Peiping,  
1958, pp 33, 34.

JPRS 1452-H

Sci - Phys  
Apr 59

85,575

(NY-5810)

Domestic News in K'o-hsueh Hsin-wen, No 19, 11 Oct 1958,  
15 pp.

CHINESE, per, K'o-hsueh Hsin-wen, No 19, 11 Oct 1958,  
pp 465-468.

JPRS 7803

FE - China

Econ - Production

Jun 61

155,979

(NY-5810)

Domestic News in K'o-hsueh Hsin-wen, No 20, 26 Oct 1958,  
12 pp.

CHINESE, per, K'o-hsueh Hsin-wen, No 20, 26 Oct 1958,  
pp 489-492.

JPRS 7803

FE - China

Econ - Production

Jun 61

155, 980  
156, 993

(NY-5810)

Domestic News in K'o-hsueh Hsin-wen, No 22,  
26 Nov 1958, 12 pp.

CHINESE, per, K'o-hsueh Hsin-wen, No 22, 26 Nov 1958,  
pp 537-540.

JPRS 7803

FE - China

155,981

Econ - Production

Jun 61

(NY-5810)

Domestic News in K'o-hsueh Hsin-wen, No 23, 11 Dec 19  
14 pp.

CHINESE, per, K'o-hsueh Hsin-wen, No 23, 11 Dec 1958,  
pp 561-564.

JPRS 7803

FE - China

Econ - Production

Jun 61

155,990

(NY 581)

Domestic News in K'o-hsueh Hsin-wen, No 24, 26 Dec 19  
13 pp.

CHINESE, per, K'o-hsueh Hsin-wen, No 24, 26 Dec 1958,  
pp 585-588.

JPRS 7803

FE - China

Econ - Production

Jun 61

*1554P1*  
*156,992*



(NY-5707)

Accomplishments in Fusion Reaction, 3 pp.

CHINESE, per, K'o-hsueh Hsin-wen, 11 Jan 1959,  
p 609.

JPRS 7724

Sci - Nuc Phys

Apr 61

146,022

(NY-5707)

Accomplishments of the Leap Forward in Chinese  
Science, by Wu Yu-hsun, 6 pp.

CHINESE, per, K'o-hsueh Hsin-wen, No 3,  
11 Feb 1959, pp 23, 24.

JPRS 7724

FE - China

800

Apr 61

146,023

(NY-5793)

Domestic News, 11 pp.

CHINESE, per, K'o-hsueh Hsin-wen, No 4,  
26 Mar 1959, pp 22-24.

JPRS 7/56

FE - China

Beon - Production

Mar 61

142,687

(NY-5810)

Domestic News in K'o-hsueh Hsin-wen, No 5, 11 Mar 1959,  
7 pp.

CHINESE, per, K'o-hsueh Hsin-wen, No 5, 11 Mar 1959,  
pp 22-23.

JPRS 7803

FE - China

155,982

Econ - Production

Jun 61

(NY-5773 ).

Using Furnace Gas to Obtain Low Cost Hydrogen,

CHINESE, per, K'o-hsueh Hsin-wen, No 6, 1959, p 23.

\*JPRS 7756

Sci - Chem

1 Feb 61

(NY-5793)

Pressure Changes in the Work Process Gas-Chamber  
of the Twin-Tank Internal Combustion Pump, by  
Kao Hsien-sheng, 5 pp.

CHINESE, per, K'o-hsueh Hsin-wen, No 6,  
26 Mar 1959, pp 23, 24.

JPRS 7156

Sci - Chem

Mar 61

142,688

(NY-5793).

Obtaining of Chlordane, /p.

CHINESE, per, K'o-hsueh Hsin-wen, No 6, 1959, p 24.

\*JPRS 7756

Sci - Chem

1 Feb 61

Scientific Life of Hungary.

CHINESE, per, K'o-hsueh Hsin-wen, 21 Apr 1959,  
pp 1-3.

USACRAFAC, PD  
Tr 100255A

EDat - Hungary  
Soc  
Jan 60

105,425



Technological and Physical Research Laboratory  
of the Hungarian Academy of Sciences.

CHINESE, per, K'o-hsueh Hsin-wen, 21 Apr 1959,  
pp 3, 4.

USACRAPAC, PD  
Tr 100255A

EBur - Hungary  
Soq  
Jan 60

105,426

Present Condition and Principal Course of Development of Hungarian Science.

CHINESE, per, K'o-hsueh Hsin-wen, 21 Apr 1959, pp 5-13.

UEWACRAPAC, PD  
Tr 100255A

HEAR • Hungary  
Soc  
Jan. 60

104,066

(NY-5793 ).

Using Native Methods to Manufacture Products of the  
Greatest Importance, *per*.

CHINESE, per, K'o-hsueh Hsin-wen, No 7, 1959, p 22.

\*JPRS 7756

FE - China

Econ

1 Feb 61

(NY-5704)

The Nature and Uses of Aluminum, 6 pp.

CHINESE, per, K'o-hsueh Hsin-wan, No 13,  
21 May 1959, pp 7, 8.

JPRS 7721

Sai - Min/Metals

Mar 61

142,221

(NY-5704)

A Method for Removing Sap From Cotton Stalk Bark,  
4 pp.

CHINESE, per, K'o-hsueh Hsin-wen, No 13,  
21 May 1959, pp 21, 22.

JPRS 7721.

Sci - Chem

Mar 61

142,222

(NY-5704)

Glass Fiber, Silicate Scientific Research  
Society Conference, 2 pp.

CHINESE, per, K'o-hsueh Hsin-wen, No 13, 21 May  
1959, p 22.

\*JPRS 7731

Sci - Chem  
25 Jan 61

(NY-5704)

Success in Experimental Production of an  
Instrument for Looking Into Standing Timber, /

CHINESE, per, K'o-hsueh Hsin-wen, No 13, 21 May  
1959, p 22.

\*JPRS 7721

Sci - Engr  
25 Jan 61

(DC-5182 ).

Electro-Acoustical Effect on Germanium, 4-

CHINESE, per, K'o-hsueh Hsin-wen, No 19, 7 Jul 1959,  
p 8.

\*JPRS 8465

Sci - Chem

24 Jan 61



(NY-5707).

Experimental Success of Steel Ball Press, 2 pp.

CHINESE, per, K'o-hsueh Hsin-wen, No 15, 1959, back cover.

\*JPRS 7724

Sci - *Eng*

OTS 61-21426

24 Jan 61

(DC 5182).

Electroplating of Clock Parts, 1/1

CHINESE, per, K'o-hsueh Hsin-wen, No 19, 7 Jul 1959,  
p 15.

\*JPRS 8446

Sci - Chem

24 Jan 61